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REMARKS

Claims 1-53 remain pending.

In the Office Action, the Examiner objected to the drawings; rejected claims 1, 3, 7-9, 11, 13, 17-19, 21, 22, 24, 28-30, 32, 33, 35, 39-41, 43, 44, 46, and 50-52 under 35 U.S.C. § 103(a) as being unpatentable over Gupta et al. (U.S. Patent No. 5,459,814); rejected claims 2, 12, 23, 34, and 45 under 35 U.S.C. § 103(a) as being unpatentable over Gupta et al. in view of Galand et al. (U.S. Patent No. 4,782,523); rejected claims 4-6, 14-16, 25-27, 36-38, and 47-49 under 35 U.S.C. § 103(a) as being unpatentable over Gupta et al. in view of Kapanen et al. (U.S. Patent No. 5,835,889); and rejected claims 10, 20, 31, 42, and 53 under 35 U.S.C. § 103(a) as being unpatentable over Gupta et al. in view of Atal et al. (IEEE paper).

The replacement Figs. 1-18 filed herewith obviate the objection to the drawings.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See M.P.E.P. § 2143.

Applicants respectfully traverse the § 103(a) rejection of claims 1, 3, 7-9, 11, 13, 17-19, 21, 22, 24, 28-30, 32, 33, 35, 39-41, 43, 44, 46, and 50-52 over Gupta et al. Independent claims 1 and 11 require a detector and method including, *inter alia*, "detect[ing] whether a threshold amount of energy is present to determine whether an energy flag should be set; and detect[ing]

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whether instantaneous energy is present to determine whether a instantaneous energy flag should be set.” Similarly, independent claims 21, 32, and 43 require an apparatus, method, and medium including, *inter alia*, “determin[ing] whether a noise flag, a zero crossing flag, an energy flag, and an instantaneous energy flag should be set.” A *prima facie* case of obviousness has not been established for claims 1, 11, 21, 32, and 43, because Gupta et al. as modified fails to teach or suggest all elements of the claims.

Contrary to the allegation on page 3 of the Office Action, element 31 in Fig. 4 of Gupta et al. does not detect whether a threshold amount of energy is present. Rather, the threshold comparison is with a signal level, or amplitude. See col. 3, lines 52 (“Level”) and 55 (“a simple level detection algorithm”) and col. 4, line 17 (“The average level, $y(n)$ ”). It is axiomatic that amplitude is not the same as energy (e.g., volts (amplitude) are not the same as joules (energy)). Thus, element 31 of Gupta et al. neither teaches nor suggests detect[ing] whether a threshold amount of energy is present or determin[ing] whether . . . an energy flag . . . should be set, as required by claims 1, 11, 21, 32, and 43. A *prima facie* case of obviousness has not been established for at least this reason

Also contrary to the allegation on page 3 of the Office Action, element 37 in Fig. 4 of Gupta et al. does not detect whether instantaneous energy is present. Rather, the threshold comparison is with a change of a signal level, or slope. See col. 3, line 61 (“a change in signal level or slope”). Just as amplitude is not the same as energy, the rate of change of an amplitude is also not the same as an instantaneous energy. Thus, element 37 of Gupta et al. neither teaches nor suggests detect[ing] whether instantaneous energy is present or determin[ing] whether . . . an

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instantaneous energy flag . . . should be set, as required by claims 1, 11, 21, 32, and 43. A *prima facie* case of obviousness also has not been established for at least this reason.

Dependent claims 3, 7-9, 11, 13, 17-19, 21, 22, 24, 28-30, 32, 33, 35, 39-41, 43, 44, 46, and 50-52 are allowable at least by virtue of their dependency from claims 1, 11, 21, 32, and 43. Because a *prima facie* case of obviousness has not been established for claims 1, 3, 7-9, 11, 13, 17-19, 21, 22, 24, 28-30, 32, 33, 35, 39-41, 43, 44, 46, and 50-52, their rejection under § 103(a) is improper and should be withdrawn.

Regarding the § 103 rejection of claims 2, 4-6, 10, 12, 14-16, 20, 23, 26-28, 31, 34, 36-38, 42, 45, 47-49, and 53, the addition of Galand et al. (claims 2, 12, 23, 34, and 45), Kapanen et al. (claims 4-6, 14-16, 25-27, 36-38, and 47-49), and Atal et al. (claims 10, 20, 31, 42, and 53), even if they were proper, fail to cure the deficiencies of Gupta et al. noted above. None of these three references teaches or suggests detecting energy or instantaneous energy, or setting corresponding flags. Thus, a *prima facie* case of obviousness has not been established for these dependent claims, because the references as combined fail to teach or suggest all claimed elements.

Reconsideration and allowance of pending claims 1-53 is respectfully requested.

In the event that any outstanding matters remain in this application, Applicants request

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that the Examiner contact Alan Pedersen-Giles, attorney for Applicants, at the number below to discuss such matters.

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To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is

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hereby made. Please charge any shortage in fees due in connection with the filing of this paper,

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including extension of time fees, to Deposit Account No. 50-0221 and please credit any excess fees to such deposit account.

Respectfully submitted,

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